

## 1.5 Day 2: Solving with Angle Pairs

ADJACENT  $\angle$ s



COMPLEMENTARY  $\angle$ s  
SUM =  $90^\circ$



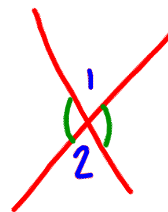
SUPPLEMENTARY  $\angle$ s  
SUM =  $180^\circ$



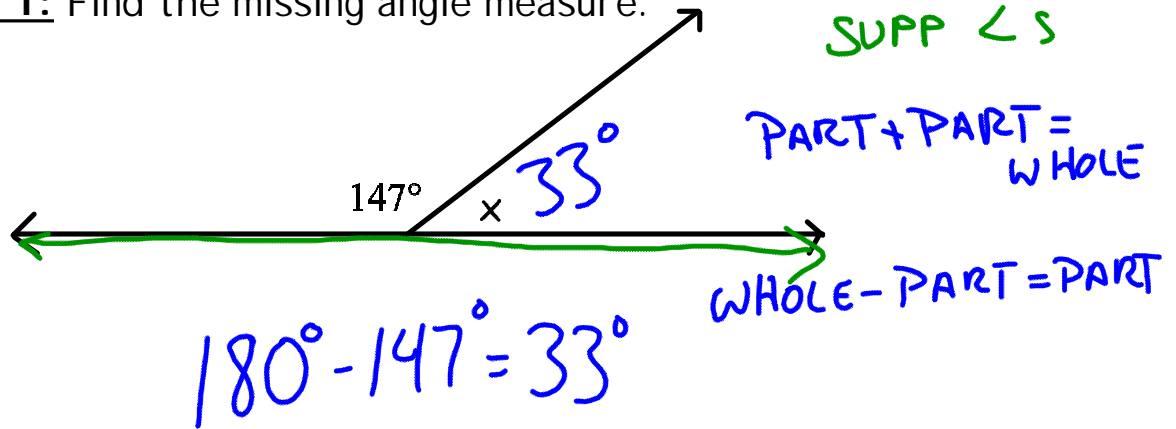
LINEAR PAIR



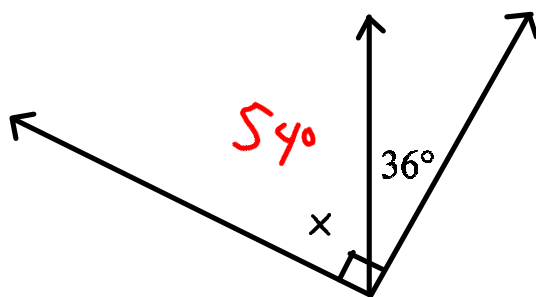
VERTICAL  $\angle$ s



**Example 1:** Find the missing angle measure.



Example 2: Find the missing angle measures.

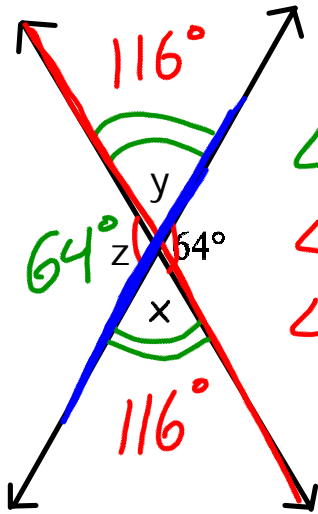


COMP  $\angle$  S  
SUM =  $90^\circ$

WHOLE - PART = PART

$$90^\circ - 36^\circ = 54^\circ$$

**Example 3:** Find the missing angle measure.



VERTICAL  $\angle$ s

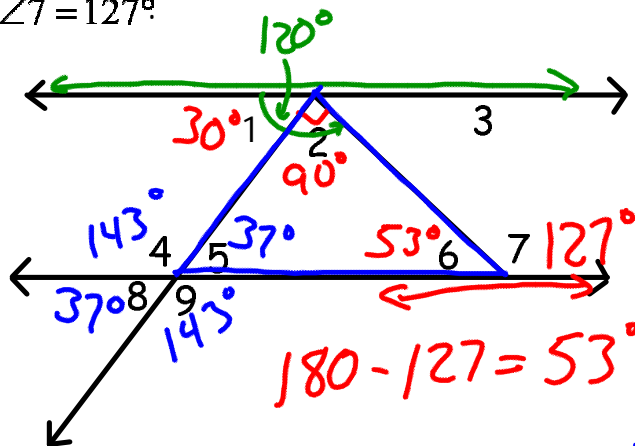
$$\angle Z = 64^\circ$$

SUPP  $\angle s$

 $\angle Y = 116^\circ$ 
$$\angle x = 116^\circ \quad 180 - 64 = \angle y$$
$$116 = 44$$

**Example 4:** Find the missing angle measure. Given:  $\angle 1 = 30^\circ$ ,  $\angle 2 = 90^\circ$ ,

$\angle 7 = 127^\circ$



$\angle 3$

PART + PART + PART = WHOLE

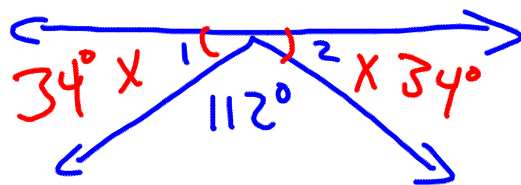
$$30 + 90 + \angle 3 = 180$$

$$\angle 3 = 60^\circ$$

$$180 - 127 = 53^\circ$$

$$\begin{aligned} \angle 4 &= 180^\circ - 37^\circ \\ &= 143^\circ \end{aligned}$$

$$\begin{aligned} \angle 2 + \angle 6 + \angle 5 &= 180^\circ \\ 90^\circ + 53 + \angle 5 &= 180 \\ \angle 5 &= 37^\circ \end{aligned}$$



FIND  $\angle 1$

$$\angle 1 \cong \angle 2$$

PART + PART + PART = WHOLE

$$112 + x + x = 180$$

$$2x + 112 = 180$$

$$2x = 68$$

$$x = 34^\circ$$

68  
168  
34

